CLAIMS

What is claimed is:

1. A method of inhibiting the ability of a cell to degrade an extracellular matrix, the method comprising inhibiting the activity of 22437 protein expressed by the cell, whereby the ability of the cell to degrade the extracellular matrix is inhibited.

2. The method of claim 1, wherein the activity of 22437 protein expressed by the cell is inhibited by inhibiting expression of the 22437 gene in the cell.

3. The method of claim 2, wherein expression of the 22437 gene is inhibited by administering to the cell an antisense oligonucleotide which hybridizes under stringent conditions with a transcript of the 22437 gene.

4. The method of claim 3, wherein the antisense oligonucleotide comprises at least 15 nucleotide residues.

5. The method of claim 3, wherein the transcript is an mRNA.

6. The method of claim 2, wherein expression of the 22437 gene is inhibited by administering to the cell an antisense oligonucleotide which hybridizes under stringent conditions with a polynucleotide having the nucleotide sequence SEQ ID NO: 1.

7. The method of claim 2, wherein expression of the 22437 gene is inhibited by administering to the cell an antisense oligonucleotide which hybridizes under stringent conditions with a polynucleotide having the nucleotide sequence SEQ ID NO: 3.

8. The method of claim 1, wherein the activity of 22437 protein expressed by the cell is inhibited by inhibiting a catalytic activity of 22437 protein without significantly affecting 22437 gene expression in the cell.

9. The method of claim 1, wherein the activity of 22437 is inhibited by administering to the cell an agent which inhibits an activity of 22437 protein.

10. The method of claim 9, wherein the agent is an antibody which specifically binds with 22437 protein.

11. The method of claim 9, wherein the activity is sulfatase activity.

12. The method of claim 9, wherein the activity is ability to degrade an extracellular matrix.

13. The method of claim 1, wherein the cell is a tumor cell.

14. The method of claim 13, wherein the tumor cell is selected from the group consisting of a colon tumor cell, an ovarian cancer cell, a breast cancer cell, a lung cancer cell, and a glioblastoma cell.

15. The method of claim 1, wherein the cell is a vascular endothelial cell.

16. The method of claim 1, wherein the cell is a neuronal cell.

17. The method of claim 16, wherein the neuronal cell is selected from the group consisting of an astrocyte, a neuron of the cerebral cortex, and a neuron of the hypothalamus.

18. The method of claim 1, wherein the cell is in the body of a human.

19. A method for assessing whether a test compound is useful for modulating at least one phenomenon selected from the group consisting of tumor establishment, tumor

growth, tumor metastasis, epithelial cell proliferation, endothelial cell proliferation, neuronal cell growth, wound healing, and cerebral injury healing, the method comprising:

a) adding the test compound to a first composition comprising a polypeptide that has an amino acid sequence at least 80% identical to SEQ ID NO: 2 and that exhibits a 22437 activity and;

b) comparing the 22437 activity in the first composition and 22437 activity in a second composition that is substantially identical to the first, except that it does not comprise the test compound,

whereby a difference in 22437 activity in the first and second compositions is an indication that the test compound is useful for modulating the phenomenon.

20. The method of claim 19, wherein the activity is selected from the group consisting of sulfatase activity and ability to degrade an extracellular matrix.

21. The method of claim 19, wherein the protein has the amino acid sequence SEQ ID NO: 2.

22. The method of claim 19, wherein the first composition comprises a cell comprising a nucleic acid encoding the protein.

23. The method of claim 22, wherein the nucleic acid is the genome of the cell.

24. The method of claim 22, wherein the nucleic acid comprises the 22437 gene

25. A method for assessing whether a test compound is useful for modulating at least one phenomenon selected from the group consisting of tumor establishment, tumor growth, tumor metastasis, epithelial cell proliferation, endothelial cell proliferation, neuronal cell growth, wound healing, and cerebral injury healing, the method comprising:

a) adding the test compound to a first composition comprising a cell which comprises a nucleic acid that encodes a polypeptide that has an amino acid sequence at least 80% identical to SEQ ID NO: 2 and that exhibits a 22437 activity and;

b) comparing 22437 activity in the first composition and 22437 activity in a second composition that is substantially identical to the first composition, except that it does not comprise the test compound,

whereby a difference in 22437 activity in the first and second compositions is an indication that the test compound is useful for modulating the phenomenon.

26. A method of making a pharmaceutical composition for modulating at least one phenomenon selected from the group consisting of tumor establishment, tumor growth, tumor metastasis, epithelial cell proliferation, endothelial cell proliferation, neuronal cell growth, wound healing, and cerebral injury healing, the method comprising:

a) selecting a test compound useful for modulating the phenomenon according to the method of claim 19; and

b) combining the test compound with a pharmaceutically acceptable carrier in order to make the pharmaceutical composition.

27. A method of modulating, in a human, at least one phenomenon selected from the group consisting of tumor establishment, tumor growth, tumor metastasis, epithelial cell proliferation, endothelial cell proliferation, neuronal cell growth, wound healing, and cerebral injury healing, the method comprising administering the pharmaceutical composition of claim 26 to the human in an amount effective to modulate the phenomenon.

28. A method for identifying a compound useful for modulating at least one phenomenon selected from the group consisting of tumor establishment, tumor growth, tumor metastasis, epithelial cell proliferation, endothelial cell proliferation, neuronal cell growth, wound healing, and cerebral injury healing, the method comprising:

a) contacting the test compound and a polypeptide selected from the group consisting of

i) a polypeptide which is encoded by a nucleic acid molecule comprising a portion having a nucleotide sequence which is at least 60% identical to either of SEQ ID NOs: 1 and 3; and

ii) a fragment of a polypeptide having either an amino acid sequence comprising SEQ ID NO: 2, wherein the fragment comprises at least 15 contiguous amino acid residues of SEQ ID NO: 2

or a cell that expresses the polypeptide; and

b) determining whether the polypeptide binds with the test compound,

whereby binding of the polypeptide and the test compound is an indication that the test compound is useful for modulating the phenomenon.

29. The method of claim 28, wherein the polypeptide exhibits an activity selected from the group consisting of sulfatase activity and ability to degrade an extracellular matrix.

30. The method of claim 28, wherein the polypeptide exhibits an epitope in common with a polypeptide having the amino acid sequence SEQ ID NO: 2.